



#8/10/22/0

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:

Applicant : North et al.
Serial No. : 09/772,708
Filed : January 30, 2001
Title : WELDING ELECTRODE AND METHOD FOR REDUCING MANGANESE IN FUME
Docket : 483471-003
Examiner : Elve, Maria Alexandra
Art Unit: 1725

Assistant Commissioner of Patents
Washington, D.C. 20231

Sir:

AMENDMENT

This paper is submitted in response to the Office Action dated June 6, 2002. This response is accompanied by a petition for a one month extension. Please amend the paragraph beginning on line 21 of page 3 (Detailed Description of the Invention) as follows:

Paragraph 3 (Amended)

Fig. 2 illustrates a typical admixed particle 60 in which particles of manganese 64 are embedded in a matrix of the shielding material 62. These particles can vary in structure. The particles 60 shown in Fig. 2 include manganese particles 64 that extend from the surface to the structure. In Fig. 3, the particle 60 has an encapsulated structure in which a manganese particle 64 is coated with the shielding material 62. A composite particle structure is also possible in which multiple capsules agglomerate to produce the polycapsular particles. Those skilled in the art will recognize that the structure of the composite particle can be adjusted by varying the amount and particle size of the manganese and shielding material as well as varying the process used to create the admixture.

Please amend claims 4, 10 and 11 as follows:

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- A2. 4. (Amended) The electrode of claim 3 wherein the shielding materials is rutile.
- A1. 10. (Amended) The electrode of claim 1 wherein the electrode is formulated for welding on mild steel and has the following composition in approximate percent by weight of the wire.

Constituent	Mild Steel
C	0.0-0.12
Mn	0.5-3.0
Si	0.0-2.0
Ti	0.05-0.7
B	0.0-0.1
Cr	0.0-0.4
Ni	0.0-0.5
Mo	0.0-0.1
V	0.0-0.5
Al	0.0-0.5
Cu	0.0-0.1
Mg	0.0-0.5
Fe	01.48-99.45

11. (Amended) The electrode of claim 1 wherein the electrode is formulated for welding on low alloy steel and has the composition in approximate percent by weight of the wire.

Constituent	Low Alloy
C	0.0-0.13
Mn	0.5-3.75
Si	0.0-2.0
Ti	0.05-0.7
B	0.0-0.1
Cr	0.0-10.5
Ni	0.0-3.75
Mo	0.0-1.2
V	0.0-0.25
Al	0.0-0.5
Cu	0.0-0.75
Mg	0.0-0.5
Fe	75.87-99.45